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L'étude vise à comparer deux modèles d'enseignement destinés à des élèves du primaire souffrant de troubles d'apprentissage. Le modèle expérimental consiste à intégrer les élèves dans les classes régulières, tout en prévoyant pour eux des sessions spéciales de rééducation qui ont lieu dans un local assigné à cette fin. Le modèle traditionnel consiste à maintenir ces élèves à l'écart du reste de leurs compagnons, au sein de classes spéciales.

L'expérimentation a eu lieu en 1980-1981 à l'école St-Paul (commission scolaire Les Ecoces), en milieu anglo-catholique. Cette école de 350 élèves comprend 22 cas de difficultés d'apprentissage et d'adaptation; ils ont été départis en un groupe expérimental (intégration) et un groupe témoin (classe spéciale). Les pré-tests ont eu lieu en octobre 1980, les post-tests en mai 1981. D'une part, des questionnaires (reproduits en annexe) ont servi à mesurer l'évolution des attitudes des enseignants à l'endroit du programme; d'autre part, des tests ont permis de déterminer les progrès scolaires des élèves.

Les progrès scolaires des deux groupes sont similaires et encourageants. Il semble donc que le projet expérimental, étant donné ses avantages en ce qui concerne l'intégration sociale des enfants inadaptés, mérite une sérieuse attention. Quant aux professeurs impliqués dans le projet, leur attitude a évolué au cours de l'année de façon nettement positive.

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OFFICE OF RESEARCH ON EDUCATIONAL POLICY

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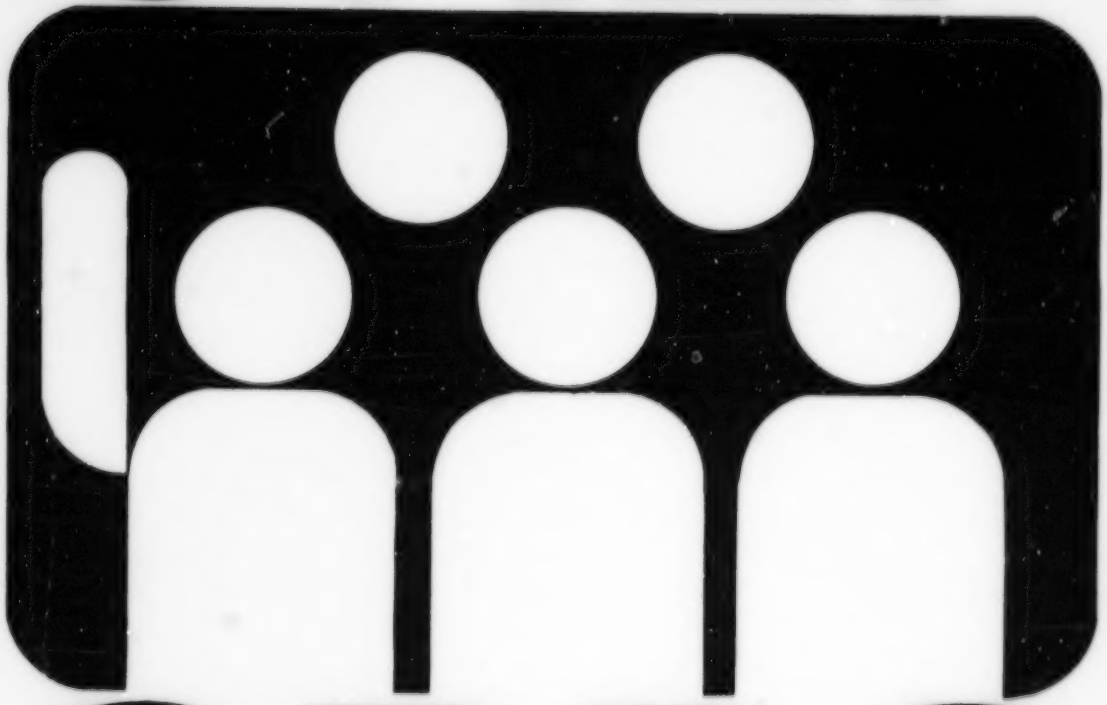

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Faculty of Education
Administration and Policy Studies

McGill University

C S La Ecole

ST. PAUL RESOURCE ROOM PROJECT
FINAL REPORT

Gary J. Anderson
Janyne M. Rahming
Lois Tetreault

June 1981

McGILL UNIVERSITY, FACULTY OF EDUCATION, OFFICE OF RESEARCH ON EDUCATIONAL POLICY

ST. PAUL RESOURCE ROOM PROJECT

COMMISSION SCOLAIRE LES ECORES

ST. PAUL SCHOOL

McGILL UNIVERSITY, FACULTY OF EDUCATION, OFFICE OF RESEARCH ON EDUCATIONAL POLICY

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PROJECT AND RESEARCH TEAMS

SCHOOL PERSONNEL

Principal	Mary Martin	Overall responsibility for project administration and supervision.
Resource Room Teacher(s)	Jacqueline Monette & Maria Centritto	Planning and carrying out resource room activities, including selection of materials, diagnostic assessment, remediation, communication with regular class teachers.
Teacher-aide	Barry Russell	Providing link between resource room and regular class, works both within the resource room and with project children in the regular class.
		Completing Special Education Diploma internship.

RESEARCH PERSONNEL OF OFFICE OF RESEARCH ON EDUCATIONAL POLICY

Director of OREP	Dr. Gary Anderson	Overall administration, supervision and consultation.
Project Director (Researcher-Consultant)	Lois Tetreault	Consultation and support role in resource room.
		Supervision of teacher-aide internship.
		Supervision and coordination of all research activities, including design, instrumentation, data analysis and report writing.
Researchers	Howard Barber	Data collection, coding, and analysis.
	Janyne M. Rahming	Planning research design, developing instrumentation, writing reports.
Administrative Assistant	Sylvia Sklar	Administrative duties.
Secretary	Geraldine Norton	Typing and preparation of research instruments and reports

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ABSTRACT

The project compared an alternative form of Special Education service with a traditional type of service. Specifically, this involved the comparison of a Research Room model to a self-contained Special Class model. Students in the Resource Room model were placed in a regular classroom, and went out of that class for necessary Special Education services. A unique feature was the presence of a teacher-aide who acted as a liaison between the Resource Room and the Regular class.

Research results indicate that the Resource Room service model was an effective alternative to special class placement for those students who have mild learning problems. Project students showed statistically significant gains on all academic measures over the school year, as did control students.

Teachers who had project students in their regular classes showed significant positive changes in their attitudes toward and acceptance of exceptional children. However, the day-to-day contact with an integrated exceptional child not only increased acceptance, but also emphasized the realities and demands of integration, and the necessity for individualized instruction.

For this model to be successful, it is strongly recommended that funds for consultative services to regular classroom teachers be made available to the school board.

I. INTRODUCTION

The purpose of this project was to develop an alternative model for delivering educational services to pupils who were candidates for special education. The project was concerned with providing such services in a context which maximized special education pupils' integration into the mainstream of school life. To do so, the project applied a resource room model in which pupils were assigned to regular classes and received appropriate extra help mainly in reading and maths from the resource room teacher and a teacher aide. This aide provided the major link between the regular class and the resource room and had a role intended to facilitate the transfer of educational services from the resource room to the regular class.

Research on the project was concerned with evaluating the effectiveness of the model outlined above. Two aspects of the intervention were specifically considered:

(1) The effect upon students - How do pupils who received resource room services compare with a control group receiving traditional, self-contained, special education class treatment? The comparison is made both on measures of academic success and perhaps more critical from the point of view of the purpose of the project, on measures of social-emotional adjustment.

(2) The effect of the project on the milieu - Have there been changes in teachers' special education knowledge and attitudes toward integration policies?

II. THE MODEL

Background Information on School.

St. Paul is the only English-Catholic school in the east end of Laval and serves a school community of 250 families, mostly middle-class. The ethnic profile of the school includes a high proportion of pupils from homes where languages other than English are spoken. Approximately 70% of the pupils are of Italian origin, 20% come from French-Canadian homes, 5% come from Irish Canadian families and the remaining 5% are of either German, Portuguese or Greek origin.

There are twelve regular teachers with the following assignments:

Grade 1	- 2
Grade 2	- 2
Grade 3	- 1
Grade 3/4	- 1
Grade 4	- 1
Grade 5	- 2
Grade 6	- 3

Specialists are also available as follows:

Physical Education	- 1
French	- 1.6
Art	- .5

Special Education services are provided by two teachers responsible for two self-contained classes as well as by the resource room teacher. A teacher aide was added to this list for the purposes of the project. Professional part-time resource personnel include a nurse, a psychologist and a social worker.

The total of approximately 350 children is distributed as follows:

Kindergarten	30
Grade 1	34
Grade 2	49
Grade 3	28
Grade 3/4	21
Grade 4	32
Grade 5	52
Grade 6	84
Special Education	21

The Resource Room Model - Participants

The resource room model is well defined by Donald Hammill (1972):

> Technically, these rooms are any instructional settings to which children come for specified periods of time on a regularly scheduled basis for special training or services. The fundamental difference between a resource room and a special class is that the child attends the resource room only on a part-time basis and remains for at least a portion of the day in his regular class.

It should be noted that the St. Paul School model offered both free flow and resource room service. These services differed in that for those pupils receiving a resource room service, the resource room teacher had responsibility for certain subjects. Both the resource teacher and classroom teacher decided which subjects each would monitor. In the free flow service, subject responsibility was shared.

Eleven students received resource room service as defined above. The resource room personnel also undertook to provide free flow service to an additional eleven subjects though these were not considered research subjects. The resource room thus provided service to a total of twenty-two students. While there have been changes in which students received resource room help, the number remained reasonably constant over the school year.

In addition to providing direct teaching activities, the resource room with its variety of remedial and diagnostic material could provide support to other teachers. These teachers were welcome to make use of these materials as well as given assistance to make the most effective use of these.

Resources

a) physical resources

Figure 1 shows the arrangement of the physical setting. The resource room is a kindergarten classroom which has been transformed into a variety of learning and activity centres suitable for individual or small group instruction. It should be noted that a wide variety of educational materials was made available. These materials provided for core remediation activities beyond what had been previously available. Materials were also coded and stored in such a manner as to facilitate the task of familiarizing regular classroom teachers with their potential usefulness.

b) human resources

resource room teacher:

The resource room project required the participation of a variety of professionals. At the centre of activity was the resource room teacher, a special education specialist, who had the responsibility for daily planning, teaching, and evaluation activities. In addition, the resource room teacher had the responsibility for ensuring adequate communication with the regular classroom teacher. The person who had

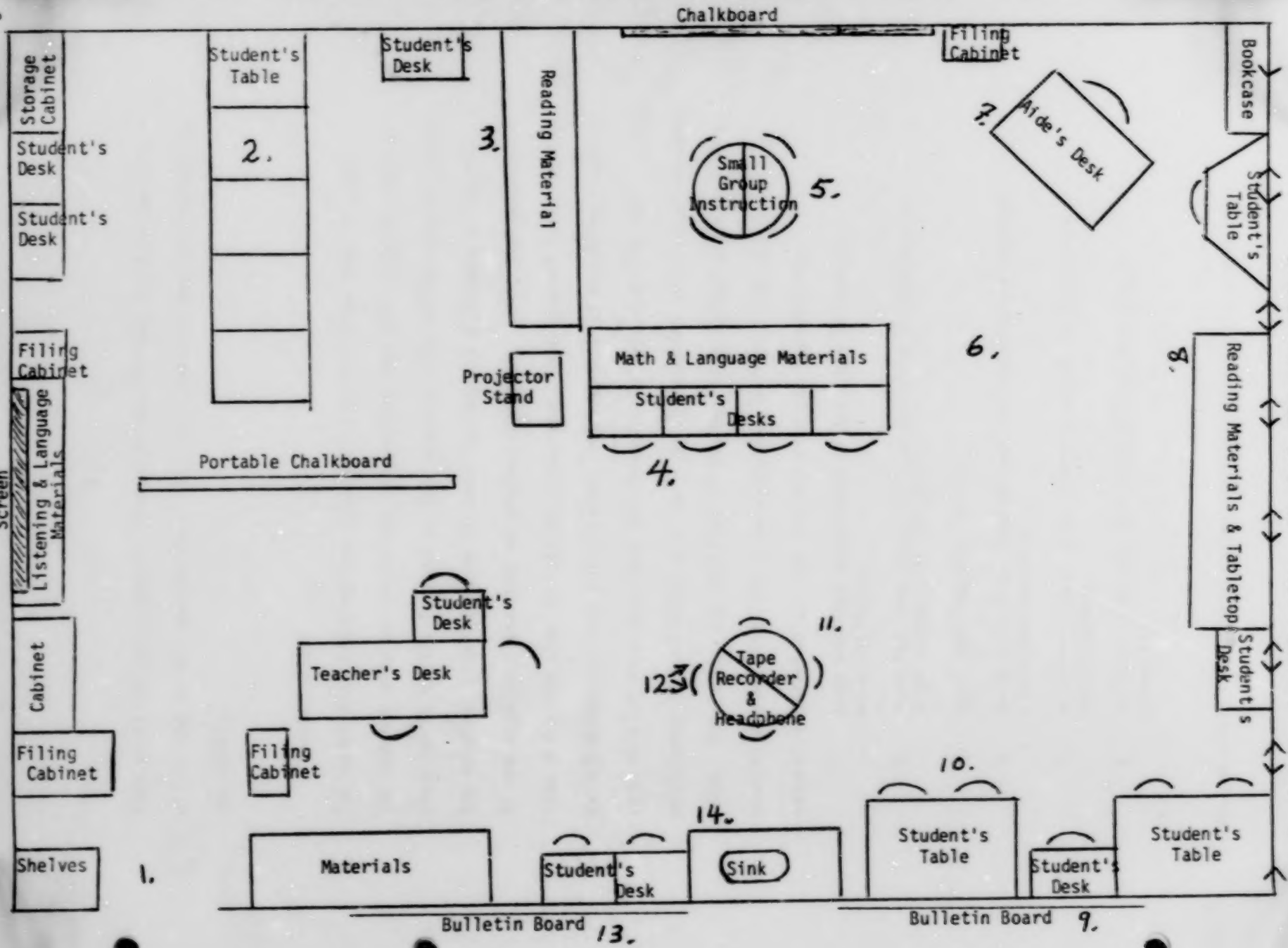


Fig. 1. Resource Room Floor Plan - St. Paul Elementary School

this position was a special education teacher who had been working within the school and had been very involved with the development of the model.

teacher aide:

The model also required the presence of a full-time teacher aide. The teacher aide was primarily responsible for effecting the needed transfer of skills learned in the resource room to the regular class. The original intention was to have the teacher aide work primarily in the regular classrooms of project children. While the teacher aide did spend time in regular classrooms, this did not occur to the extent which had been anticipated. The demands of providing resource room service were such that the teacher aide was required for assistance in individual and small group teaching within the resource room. Generally, the position of teacher aide in any situation is a sensitive one. This was a para-professional position which had several requirements. The teacher aide was expected to:

1. have had some experience or training in working with children;
2. have had some experience or training in working with exceptional children;
3. have some teaching skills;
4. be aware of the demands and difficulties of regular classroom teaching;
5. be able to deal with inter-personal relationships and problems;
6. be able to become assimilated into the school community.

In this particular situation, and for this project, there were some specific considerations which governed the appointment of the teacher aide. To avoid placing the school board in a difficult situation regarding the hiring of a teacher aide, the Office of Research on Educational Policy was designated as official employer. Since the salary associated with this position was very small, other benefits were attached. This included an internship placement, where the teacher aide was able to receive some course credit and supervision toward a Special Education Certificate from McGill University.

Fortunately for the project the person hired met these requirements. This person had comoleted his teacher training but had been unable to find a teaching situation. In addition he had had considerable experience working as a volunteer with exceptional children, and had worked with emotionally disturbed youngsters in his student teaching experience.

regular classroom teachers (6):

The regular classroom teachers were made aware of diagnostic test results and met with the resource room teacher to develop the child's educational plan and decide on subject area responsibility. Over the year they were also involved in decisions regarding the amount of time the child would spend in the resource room and the extent to which responsibility for the child's program would be shifted from the resource room to the regular class.

The model included the need for a special education consultant to assist in the development of the resource room program. In this case, this role happened to be carried by the project director who was also responsible for the research. In other cases, such a role may be held by a board consultant. This consultant was responsible for regular meetings with the resource room team on issues concerning the organization of services within the model.

Other members of the school team such as the principal and pupil service personnel also provided support to the program though not in such a way as to greatly alter their established roles. For example, it should be clear that the principal retained overall responsibility for project implementation. Figure 2 illustrates the manner in which different agents related within the resource room project.

FIGURE 2

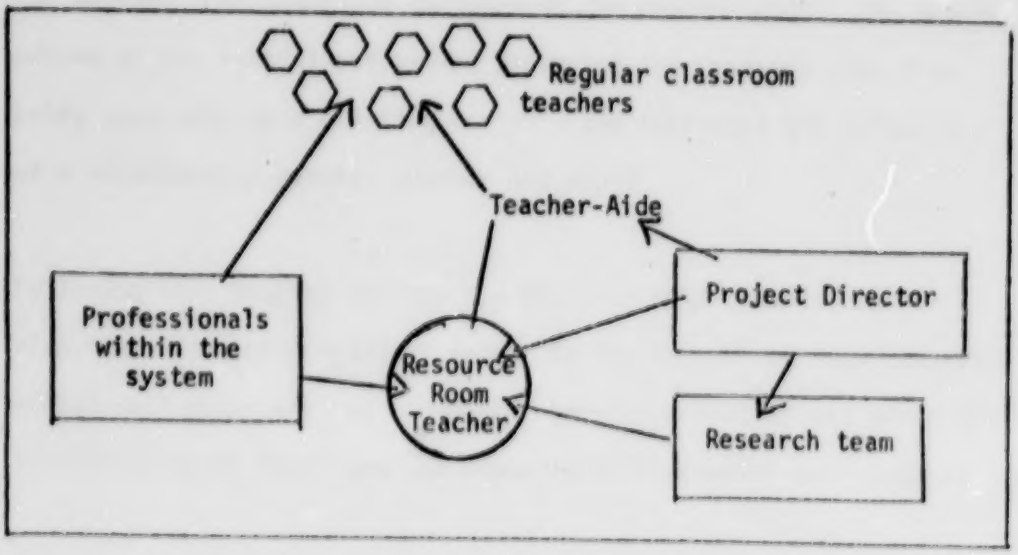


Fig. 2. St Paul Resource Room Model: Human Resources

Resource Room Activities and Scheduling

As school opened, students of the experimental group reported to the regular class to which they were assigned. A total of six regular classes had students in the resource room project. Students of the control group attended one of two self-contained, special education classes where both teachers had begun a team approach and worked with all of the pupils in the self-contained classes on a somewhat regular basis.

The resource room teacher, with the assistance of a teacher aide and in consultation with one of the researchers, began in September a program of diagnostic testing designed to assist in the identification of pupil needs. This testing program lasted somewhat longer than expected and was not completed until late October.

During this testing period, resource room pupils were introduced to the working area under the guidance of the teacher aide. The general nature of the initial activities prevented the resource room from being seen only as a "testing centre", and initiated the formation of a relationship between teacher and pupil.

Following this testing period, the resource room teacher, teacher aide, and research consultant began the development of individualized educational plans for the students. Careful attention was given to identified pupil needs and the planning of strategies and suitable

materials to be used in future sessions. This was done in consultation with the regular class teacher of each child. Figure 3 is a sample of the form which was used to guide the meetings.

Again, time spent at this stage exceeded the original estimate.

Individual timetables were then drawn up for each child. It should be stressed that these timetables fluctuated during the year as children began to spend less and less time in the resource room, in some cases returning full-time to the regular class. Figure 4 provides a sample timetable for a child as of November 1980, the early stage of operation.

FIGURE 3

Review of diagnostic information:

Comments:

Educational needs and goals:

Review and evaluation date of above goals: _____

Areas or subject to be learned in regular class:

French____Math____Phys. Ed.____Art____Religion____Lang. Arts____

Other:_____

Total percent of time in regular class in an average week:_____

Areas or subjects to be learned in Resource Centre:

Total percent of time in Resource Centre in an average week:_____

Teaching materials to be used in the classroom:

Subject:_____Materials:_____

Subject:_____Materials:_____

Subject:_____Materials:_____

Teaching materials to be used in the Resource Centre:

Subject:_____Materials:_____

Subject:_____Materials:_____

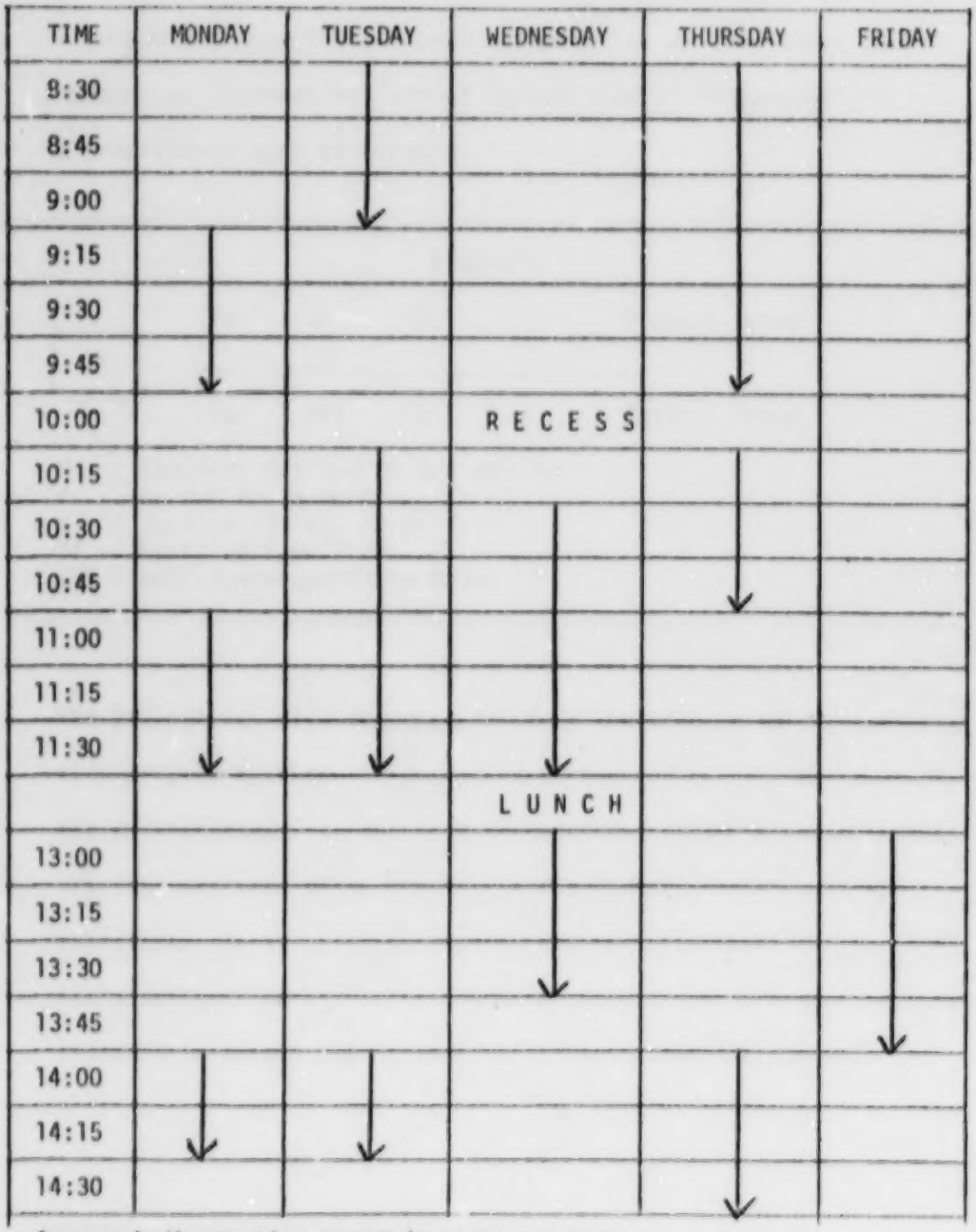
Subject:_____Materials:_____

Fig. 3. Summary of Discussion with Regular Class Teacher.

FIGURE 4

Name: Danny

Grade: 3



Arrows indicate time spent in resource room.

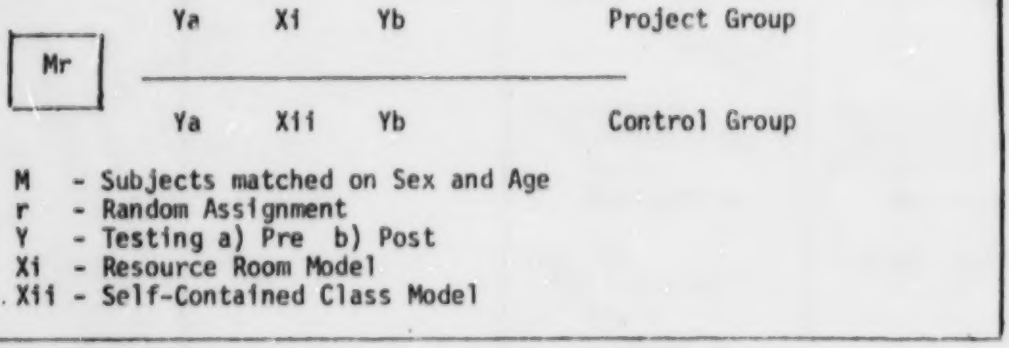
Fig. 4. Sample Timetable

III. RESEARCH ACTIVITIES

Design

Figure 5 outlines the research design which was developed to compare an alternative form of Special Education service with a traditional type of service.

FIGURE 5


Ya Xi Yb Project Group
Mr
Ya Xii Yb Control Group
M - Subjects matched on Sex and Age
r - Random Assignment
Y - Testing a) Pre b) Post
Xi - Resource Room Model
Xii - Self-Contained Class Model

The project was also designed to study the effects of the resource room project both on the pupils it served and on all the teachers who participated. In the case of teachers, comparisons were made on pre/post measures of information and attitudes toward special education. In the case of pupils, the measures used included both tests designed to evaluate skills in reading and math and instruments intended to assess pupils' social and emotional adjustment.

FIGURE 6

	TEACHERS	STUDENTS	
		EXPERIMENTAL	CONTROL
Pre Tests September/ October 1980	Teacher Questionnaire 1. Knowledge 2. Applications 3. Attitudes	Reading: Schonell Vocabulary Roswell-Chall-Word Analysis G.A.P. Test - Comprehension Gates - McGinitie Durrell Analysis Mathematics: Stanford Diagnostic Mathematics Social: Self-Concept Scale Sociometric Survey Behavior Rating Scale Other: Peabody Picture Vocabulary Boehm Basic Concepts Berry Visual-Motor	Reading: Schonell Vocabulary Roswell-Chall-Word Analysis G.A.P. Test - Comprehension Gates - McGinitie Mathematics: Stanford Diagnostic Mathematics Self-Concept Scale
Post Tests May 1981	Teacher Questionnaire Perceptions of Program	Repeat Above Measures	Repeat Above Measures

Fig. 6. St. Paul Pilot Project Research Design

Figure 6 outlines the research instruments used with each group. Additional tests were administered to students in the experimental group but they were used more for diagnostic purposes than for program evaluation. Such tests provided the data base from which the resource room teacher and the regular classroom teacher could develop an individual educational plan.

Ethical Concerns and Communication

Parents of all pupils selected for the study were informed of the nature of the project and provided their consent for their child's participation in the project and for release of intelligence test results to the research team (Appendix A). The major changes which the project implied concerned the return of their child to a regular class though the child still received special education services through the resource room.

Since the project was initiated at the level of the school, in consultation with board personnel, members of the school community were aware both of the nature of the project and of their participation. Teachers provided their consent to completion of all questionnaires.

The research team submitted an ethical research statement to the Research Committee of the Faculty of Education at McGill University for approval which was granted. Copies of relevant documents can be found in Appendix A.

Student Selection

The students served by the resource room program were selected from the general special education population of the school and did not necessarily share similar characteristics. All students which had been assigned to self-contained special education classes were originally considered, whether their difficulties were primarily emotional, social, or academic. Deleted from this original list were only those students considered by school personnel to have such serious needs as to require self-contained classroom placement. Essentially these were students whom school personnel felt might be placed at further risk if required to re-enter the regular classroom at that time. Once this shorter list was finalized students were paired on the basis of age and sex and randomly assigned to either the experimental or control group. Twenty-two students, ranging in age from 8 to 11, were so assigned, 11 in each group.

Throughout this report, those students who participated in the resource room project are referred to as "project" students. Those assigned to the control group are referred to as "control" students.

Research Instruments and Data Collection Procedures

As can be seen from Figure 5, some research instruments were

readily available, either because these were well-known standardized tests or because they have been used for research purposes and have been reported on in the literature. However, the teacher questionnaire used was produced by the research team for this project and required that considerable time be spent on its development. The questionnaire is adapted from Gickling & Theobald (1975) and Paul, Turnbull, & Cruickshank (1977) and includes three sub-sections. The first includes 35 items which deal primarily with teacher knowledge of special education candidates and attempts to sample the teacher's ability to identify and correctly interpret critical behavioural features of pupils with different handicaps. The second section is concerned with sampling teacher's reaction to different pupil behaviours. The section is composed of 55 items each presenting a brief description of the behaviour of a particular child. The teacher is then asked to suggest the appropriate placement for that child. Permissible choices are as follows:

A. regular classroom, no special provision
B. regular classroom, part-time or occasional aide
C. regular classroom, regular or full-time specialist support
D. special class
E. special school

The final section contains 20 items designed to tap teacher attitudes towards special education in general and towards mainstreaming policies in particular. While this questionnaire was first used within the context of this project, its validity

was verified through consultation with specialists. Furthermore, it has now been used by the researchers in other research activities and verification of its reliability is pending (see Appendix B).

Teacher questionnaires were administered late in September in the context of a pedagogical day, in part devoted to explaining the project to school personnel. At this time, the project director discussed with all staff both the nature of the resource room project and the research attached to it. Teachers then gave their informed consent and responded to the questionnaire. These responses were, of course, anonymous and the only distinguishing features had to do with the role of the respondent (administrator, support staff, teacher) and with whether the respondent had a project pupil in his/her class. A sample of this questionnaire is available in Appendix B. Questionnaires were again administered at the end of May 1981.

Pupil pre-testing occurred in late September and early October. It should be noted that all tests intended for use in the research were administered by the research team. The only exception was the Gates-McGinitie which is, in fact, rountinely administered throughout the whole school by individual class teachers. In addition, the researchers who completed the testing of pupils were

not made aware of which pupils formed the control group and administered tests to all pupils in the self-contained class. This was done to preserve the "blind" which existed for the teachers of those two classes who do not know which of their pupils belong to the control group. Post-testing began in mid-May and continued until early June 1981. The only change in procedure was the use of the teacher aide as tester on the measures of academic achievement.

IV. TREATMENT OF DATA

The results of data collection from the fall of 1980 and the spring of 1981 were coded and analysed using Statistical Package for the Social Sciences (SPSS) programs.

For the student group, raw scores were used throughout, except for the Durrell Analysis of Reading Difficulty, which yields only grade level scores. Where appropriate, t-tests were used to compare fall and spring scores within the project group, and spring scores between the control and project groups.

Because the responses to the teacher questionnaire were anonymous, it was not appropriate to use t-tests, since it was not possible to calculate a correlation coefficient. Hence, to determine if a significant relationship existed between the fall and spring questionnaire responses, a chi square test of significance was performed.

Discussion and Interpretation of Results:

Since data were collected from two distinct groups of subjects, the data analysis will be presented in two parts: 1) Student Data and 2) Teacher Data.

1) Student Data

The student data analysis was intended to examine the effects of a resource room service delivery model on students' achievement. Two kinds of data analysis were planned. First, the project students' performance on tests of academic achievement at the beginning of the school year would be compared to their performance at the end of the school year. Second, the performance of the project and control group students at the end of the school year would be compared. The data in Table 1 provides a descriptive analysis of the students involved in the project by sex and by grade level.

TABLE 1

DESCRIPTIVE STATISTICS OF ALL STUDENTS INVOLVED IN THE CLINIC

	CONTROL GROUP	PROJECT GROUP
SEX		
male	8	8
female	3	3
	11	11
GRADE LEVEL		
Grade 2		1
Grade 3		3
Grade 4		2
Grade 5		4
Grade 6		1
		11
Special Education Class	11	

Students in the control and project groups were matched on sex and age before being randomly assigned to either group. Intelligence test scores were available for all students and were compared to confirm that the control and project groups were not significantly different in terms of intelligence. The results are reported in Table 2, and indicate that there are no statistically significant differences on intelligence measures between students in the control and project groups.

TABLE 2

T-TEST
COMPARISON OF CONTROL AND PROJECT STUDENTS
ON MEASURES OF INTELLIGENCE

Weschler Intelligence Scale for Children	CONTROL (N-7)		PROJECT (N-11)				
	$\bar{x}$	SD	$\bar{x}$	SD	df	t	p
Verbal IQ	83.2	12.21	82.7	8.18	9.46	- .11	n.s.
Performance IQ	97.14	11.15	97.18	13.27	14.58	.01	n.s.
Full Scale IQ	90.37	10.74	88.63	9.60	14.16	- .36	n.s.

In this type of research project, where a new model of service delivery to a specific population is being evaluated, one of the most important questions to be answered concerns whether or not the academic performance of those students who receive help under the new model suffers any loss as a result of this innovation. That is to say, the major aim of this type of evaluation is not to show that those involved in the project were "better" on certain measures than those who were not involved, but rather to show that these students did continue to learn, under the new system, and that they, in fact, held their ground and did not suffer any decrement due to their experiences. It must also be noted that we are dealing with children who, in many cases, have been experiencing learning difficulties for several years.

Since the project occurred in only one school, the numbers of children in the control and project student groups were rather small. This made data analysis and interpretation difficult. It must be remembered that the results reflect a particular teaching environment, with some unique features. Hence, the generalizability of the results may be limited.

Another complicating factor in terms of data analysis is that the project students come from grades two to six, and different levels of standardized tests had to be used, according to the child's grade placement. This resulted in some rather small numbers of students for some of the academic measures.

Table 3 presents the pre (fall) and post (spring) test results for the project children. As can be seen, significant gains were made on almost all measures for the project students. This is most noticeable on the tests which are criterion - referenced such as the Schonell Reading Vocabulary, Roswell-Chall Word Analysis and GAP Comprehension tests. These tests contain material which was taught as a direct result of diagnostic evaluation, as part of each child's individual educational plan. In spite of the small numbers on some tests, project children did show significant improvement on the Stanford Diagnostic Mathematics test. The Durrell Diagnostic Reading Test presented some difficulties in coding the child's responses for analysis but does indicate significant improvement in the oral reading area. The results from the Gates MacGinitie Reading Tests, Level C, were not as encouraging, although mean

scores increased while standard deviations decreased over the year. This may be due to the small number (N=3) of project students who were administered that particular level. The Level D was more promising, indicating significant improvement in the vocabulary subtest and in the total score.

TABLE 3

T-TESTS

BEGINNING AND END-OF-YEAR SCORES
ON ACADEMIC MEASURES FOR PROJECT STUDENTS

(N=11)

	FALL		SPRING				
	$\bar{x}$	SD	$\bar{x}$	SD	df	t	p
Schonell	25.90	13.9	43.7	15.3	10	-10.4	.000***
Roswell-Chall	71.81	23.2	92.7	12.9	10	- 5.61	.000***
GAP Test	7.90	1.08	14.70	9.44	9	- 5.31	.000***
Stanford Diagnostic Mathematics Red Level (N=3)							
Numeration	8.00	0.0	18.33	1.52	2	-11.72	.007**
Computation	12.33	.57	24.00	3.00	2	- 5.75	.029*
Application	9.66	2.51	16.66	4.93	2	- 4.04	.05*
Total	30.00	2.00	59.00	8.88	2	- 7.18	.019*
Green Level (N=8)							
Numeration	20.5	8.60	27.50	7.29	7	- 3.74	.007**
Computation	29.6	13.5	40.87	6.22	7	- 3.42	.01**
Application	13.0	5.42	19.75	8.41	7	- 3.56	.009**
Total	61.75	23.49	88.12	18.74	7	-10.15	.000***

(continued on next page)

TABLE 3 (cont'd)

	FALL		SPRING				
	$\bar{x}$	SD	$\bar{x}$	SD	df	t	p
Durrell Diagnostic Reading							
Oral Reading	2.00	.77	2.63	.67	10	- 4.18	.002**
Silent Reading	2.18	.87	2.45	.82	10	- 1.94	.082
Gates Macginitie Reading Tests Level C (N=3)							
Vocabulary	9.33	2.08	14.0	1.0	2	- 2.80	n.s.
Comprehension	7.33	6.35	10.66	2.08	2	- .69	n.s.
Total	16.66	8.38	24.66	2.88	2	- 1.23	n.s.
Level D (N=7)							
Vocabulary	14.8	7.01	19.85	5.21	6	- 2.93	.026*
Comprehension	12.71	6.31	15.85	6.98	6	- 1.82	n.s.
Total	27.57	13.21	35.71	11.60	6	- 2.84	.03*

* $p < .05$
** $p < .01$
*** $p < .001$

Table 4 reports t-test comparisons between project and control students on academic measures. Little difference between those students in the resource room and those in self-contained special classes can be found except for the Roswell-Chall Word Analysis test, which measures word attack skills, and this difference is in favour of the control group.

However, this should not be interpreted as failure of the resource room model. In fact, these data support the use of a resource room service model, since the children in this program did as well as those in a self-contained special class.

TABLE 4

T-TESTS

COMPARISONS OF SCORES ON END-OF-YEAR ACADEMIC MEASURES BETWEEN CONTROL AND PROJECT STUDENTS

	CONTROL (N=7)		PROJECT (N=11)				
	$\bar{x}$	SD	$\bar{x}$	SD	df	t	p
Schonell	83.28	12.21	87.72	8.18	9.4	- .11	n.s.
Roswell-Chall	103.14	2.41	92.72	12.97	11.06	- 2.59	.02*
GAP Test	18.85	5.64	13.45	9.86	15.9	- 1.48	n.s.
Stanford Diagnostic Mathematics Red Level (N=6)							
Numeration	22.33	5.50	18.33	1.52	2.31	- 1.21	n.s.
Computation	29.00	4.35	24.00	3.00	3.55	- 1.64	n.s.
Application	18.33	7.63	16.66	4.93	3.42	- .32	n.s.
Total	69.00	14.57	59.00	8.88	3.31	- 1.08	n.s.
Stanford Diagnostic Mathematics Green Level (N=21)							
Numeration	29.60	2.60	27.50	7.29	9.47	- .74	n.s.
Computation	40.87	6.22	43.60	2.96	10.57	- 1.06	n.s.
Application	19.80	3.34	19.70	8.41	9.88	- .02	n.s.
Total							

* $p < .05$
** $p < .01$
*** $p < .001$

Tables 5 and 6 report the results of the modified Piers-Harris self-concept scale. As can be seen no statistically significant differences are found, either on the pre and post scores of project students, or on the comparison of control and project students. One possible explanation for this is that one's self-concept may not be subject to significant change over the period of one year, especially with children who, in many cases, have spent several previous years in a "closed" special education setting. Piers suggests that self concepts are relatively stable, and that a period of several years may be necessary for change in self-concept, as measured on this type of scale, to be found. Also, of course, is the fact that one individual's scores are masked when group scores are analysed.

TABLE 5

T-TEST

BEGINNING AND END-OF-YEAR SCORES ON A MODIFIED PIERS-HARRIS SCALE OF SELF CONCEPT FOR PROJECT STUDENTS

	FALL		SPRING				
	$\bar{x}$	SD	$\bar{x}$	SD	df	t	p
BEHAVIOUR	17.63	22.51	11.36	2.37	10	.93	n.s.
SCHOOL STATUS	10.18	2.85	10.45	2.46	10	- .29	n.s.
LACK OF ANXIETY	6.45	1.86	6.45	2.01	10	- 0.0	n.s.
POPULARITY	4.90	1.72	5.60	1.17	9	- 1.11	n.s.
HAPPINESS	14.10	2.13	13.60	2.54	9	.48	n.s.

Of the nineteen who responded in the fall, three went on maternity leave during the year. The seventeen who responded in the spring included two others who had returned to their classes after Christmas. As can be seen the groups who responded to the teacher questionnaire in the fall and again in the spring are not exactly the same. To complicate matters even further, the resource teacher was ill during the spring data collection period. The data analysis is based on this group, and Table 7 contains data descriptive of this school staff.

TABLE 7

DESCRIPTIVE STATISTICS FOR TEACHERS

Teachers with project children in regular classes	9
Teachers with self-contained special classes	2
Resource Room personnel	2

Teachers with Special Education Training

Number of Courses Completed	Number of Teachers
1-3	4
4-7	1
8-10	1
over 10	3
Total	9

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over 10	3
Total	9

a) Part I

Knowledge of Exceptional Children

This part of the questionnaire dealt with general knowledge about exceptional children. Many of the questions in this section dealt with information concerning very specific types of disabilities to which the staff of a school such as St. Paul would not have access, unless most of them had completed specialist training in the area. Since this was not the case, and the completion of this section took considerable time, it was dropped from the spring data collection plans.

b) Part II

Applications of Mainstreaming

This section of the questionnaire contains short, concise descriptions of specific types of exceptionalities. Teachers were asked to judge the placement they personally felt would be most appropriate for the case described (see Appendix A for details). It was originally planned to compare the responses of the staff from the fall data to the spring

data, but since the group composition changed considerably over the year, it was not appropriate to conduct this kind of statistical analysis.

Due to these difficulties, the treatment of data is restricted to analysis of the end of year questionnaire responses. Before data were collected in the spring, each of the fifty-five items on this part of the questionnaire was judged by two people who are considered experts in the field of special education. They were asked to choose the most appropriate placements for each of the fifty-five cases in light of the Plan d'Action and the philosophy of mainstreaming.

The responses of the staff at St. Paul school were scored in two ways: first, a frequency count was made of the placements chosen by each of the staff members. Second, a mean score was generated by assigning a value of 5 to a "correct" placement, a score of 4 to a placement one step in either direction away from the "correct" one, a score of 3 for two steps away, a score of 2 for

three steps away, and so on. The highest score possible is 5.00, and the closer the mean score for the group is to 5.00, the more accurate the group could be considered to be in judging an appropriate placement for that particular type of exceptionality.

It was expected that the experience of having a project child in the regular class would have an effect on the staff's responses to the questionnaire. A one-way analysis of the variance by whether or not a staff member had a project child in the class was performed on the spring questionnaire data. The results, overall, showed little or no significant difference between these groups, except on three items of part II of the questionnaire. The results are found in Table 8.

TABLE 8

ONE-WAY ANALYSIS OF VARIANCE ON PART II QUESTIONNAIRE RESPONSES OF SCHOOL STAFF

A) PLACEMENT - SCORED	PROJECT CHILD			NO PROJECT CHILD				
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	df	F
ITEM 39	8	5.00	0.0	9	4.62	.51	1,15	4.76*
26		4.22	.83		3.00	1.06	1,15	7.00**
B) ACTUAL PLACEMENT								
ITEM 31		1.77	.44		2.62	.91	1,115	6.13*

* $p < .05$
** $p < .01$
*** $p < .001$

Part A of this table reports the mean scores for these items, while Part B reports the actual choice of placement.

For item 39, those teachers with a project child were all "correct" in their choice of the regular class as the most appropriate placement for this case. Those staff members without a project child varied somewhat, as a group, in the "correctness" of their placement choices, with some indication that part-time occasional aid in the classroom to cope with this child would be desirable.

For item 26, one can see that more variation in placement choices exist, with the teachers with a project child choosing a significantly more "correct" placement for this case.

Part B of Table 8 indicates that for item 31, teachers with a project child choose a regular class placement for this child significantly more often than staff members without a project child.

While only three items on this questionnaire show statistically significant differences between staff who have a project child and those who do not, it is encouraging to note that these three items indicate a greater degree of acceptance of exceptional children on the part of those teachers who had actual daily contact with a project child in their classrooms. While the other items did not demonstrate statistical significance, it is important to note that out of the remaining fifty-two items, those teachers who had a project child were more "correct" in their choice of placement on thirty of these items. Both groups were equally "correct" on six items and on nineteen items those staff members with no project child were more "correct" in their judgements. These data are reported in detail in Table 9.

TABLE 9

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
1. Alfred is defiant and stubborn, likely to argue with the teacher, be willfully disobedient, and otherwise interfere with normal classroom discipline.	1 / 6	8* / 47	1 / 6	7 / 41		3.8	1.05	4.2	.88
2. Barbara wears thick glasses, and her eyeballs jerk spasmodically from side to side; she can't see the blackboard very well, and she reads poorly.	3 / 18	5 / 29	3* / 18	3 / 18	2 / 12	4.0	.75	3.7	.70
3. Chuck can get about only in a wheelchair; someone must move it for him, or carry him in their arms, because he is unable to control any of his limbs.	1 / 6	3 / 18	2 / 12	2 / 12	9* / 53	4.1	1.4	3.6	1.4
4. Donald is six years old and does not speak very much; what he does say is indistinct and childish, with many missing or incorrect sounds.	*	2 / 12	6 / 35	9 / 53		2.3	.70	2.8	.64
5. Earl is eight and wears cowboy boots to class because he hasn't learned to tie his own shoe laces; he is generally cheerful and well-behaved, but talks very little and is incapable of following any but the most simple instructions.		5* / 29	4 / 24	8 / 47		3.7	.83	3.8	.99

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPON

	Frequency of Responses (N=17)					Scoring of Responses			
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	Project Child in Class (N=9)		No Project Child in Class (N=8)	
						$\bar{x}$	SD	$\bar{x}$	SD
6. Florence is immature and oversensitive, likely to burst into tears at the slightest provocation.	8* / 47	8 / 47	1 / 6			4.5	.72	4.2	.46
7. When Alice wears her hearing aid she hears as well as any other youngster; her voice sounds flat and hollow, and is somewhat unpleasant to hear.	9* / 53	5 / 29	2 / 12	1 / 6		4.1	1.05	4.5	.75
8. Suzy frequently gets so excited she loses control of herself and wets the floor.	2* / 12	11 / 65	1 / 6	3 / 18		3.6	1.0	3.7	.88
9. Ruth is very much like other eleven-year olds in most respects but occasionally, during the day, a rhythmical quiver will pass over her face and she becomes totally oblivious for a few seconds.	9* / 53	6 / 35		1 / 6	1 / 6	4.4	1.01	4.0	1.3
10. Roger's face was severely disfigures in an auto accident; although he is completely recovered physically, the surgeons do not expect to be able to make his appearance more acceptable for many years.	10* / 59	6 / 35	1 / 6			4.6	.50	4.3	.74

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

MAINSTREAMING APPLICATIONS - END OF YEAR RESPON

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occasional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
11. Alan wears a leg brace and walks with the aid of crutches; he get along quite well by himself though, and ordinarily needs no help from anyone.	15* / 88	2 / 12				4.8	.33	4.8	.35
12. Bernard is a bully, given to teasing other children and provoking fights with them.		15* / 88		2 / 12		5.0	0.0	4.5	.92
13. Cora is supposed to have a hearing loss, but she seems to hear all right when she sits at the right end of the front row of seats.	13* / 76	4 / 23				4.7	.44	4.7	.46
14. Clara has a noticeable scar on her upper lip; her speech seems to be coming through her nose, and she is hard to understand.	1 / 6	11 / 65	3 / 18	2 / 12		3.7	.83	3.6	.75
15. Dotty is eight; she has difficulty following the class, and doesn't seem able to learn to read at all.		1 / 6	6* / 35	10 / 59		4.2	.44	4.5	.63

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
16. Eight-year-old Edward sucks his thumb all the time, apparently indifferent to the reactions of parents, teachers, or other children.	2 / 12	12* / 71	1 / 6	2 / 12		4.5	.72	4.6	.74
17. Every few weeks, without any warning, Stella will have a violent physical convulsion; after several minutes she returns to consciousness with severe headache, nausea, and acute feelings of depression.	4 / 23	5* / 29	3 / 18	4 / 23	1 / 6	3.7	1.18	3.8	1.2
18. Flora has neither bladder nor bowel control and must be taken to the bathroom at frequent intervals.	2 / 12	4 / 23	5 / 29	3 / 18	3* / 18	2.5	1.3	3.6	1.06
19. David squints through his eyeglasses, even when he sits at the front of the room, and cannot read the blackboard or his book quite as rapidly as many of the other children.	1* / 6	2 / 12	11 / 65	3 / 18		3.0	.70	3.2	.88
20. Occasionally Edward will repeat a sound two or three times before he seems able to go on; he speaks when called on, but does not volunteer much.	3 / 18	9* / 53	3 / 18	2 / 12		4.3	.86	4.5	.53

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 5 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPON

	Frequency of Responses (N=17)					Scoring of Responses			
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	Project Child in Class (N=9)		No Project Child in Class (N=8)	
						$\bar{x}$	SD	$\bar{x}$	SD
21. Chuck doesn't seem to catch on to things as quickly as most, and needs to have things explained over and over again; eventually, though, he appears to learn everything the others do even though it has taken longer.	4 / 23	5 / 29	5* / 29	3 / 18		3.7	.66	4.3	.74
22. Doris is slow, absent-minded, and a daydreamer; she seems unusually quiet and withdrawn, avoids others, and is inhibited and restrained in her behavior.	1 / 6	9* / 53	4 / 23	3 / 18		4.4	.72	4.25	.88
23. Every hour or so Henry stares upwards at the ceiling for several seconds and loses consciousness; he has been like this for several years but is otherwise developing normally.	6* / 35	10 / 59		1 / 6		4.2	.97	4.2	.46
24. Fred can feel the vibrations of loud music from a radio or phonograph, knows when a door has been slammed, but does not hear speech unless it is shouted.	1 / 6	1 / 6	3 / 18	4 / 23	8* / 47	4.11	1.3	3.8	1.1
25. Greg is nine years old and tires easily. He needs frequent opportunities to rest; excessive stimulation or excitement must also be avoided.	4 / 23	3 / 18	3* / 18	6 / 35	1 / 6	3.8	.60	3.6	.74

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (Cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	Project Child in Class (N=9)		No Project Child in Class (N=8)	
						$\bar{x}$	SD	$\bar{x}$	SD
26. Harold is a capable student but has a physical defect which appears to evoke laughter, ridicule, avoidance and rejection from the other children.	5 / 29	6 / 35	4 / 23	1 / 6	1 / 6	4.2	.83	3.0	1.06
27. Jane can tell the direction from which the sunshine enters her classroom; she cannot read the letters in an ordinary book.		1 / 6	6 / 35	5* / 29	5 / 29	4.4	.52	3.8	.83
28. Albert does not pronounce all of his speech sounds correctly, but can be understood.	1 / 6	4* / 23	6 / 35	5 / 29	1 / 6	3.7	.97	3.8	.83
29. Betty is only a little over seven but she can read the fifth-grade reader very well; her handwriting is poor though she is above average in most other things.	7 / 41	4* / 23	3 / 18	3 / 18		4.2	.66	3.8	.64
30. Chester is deceitful, tells lies, and cheats in school and at play he has been involved in several thefts, and is a persistent truant.		9 / 53	1* / 6	6 / 35	1 / 6	4.0	0.0	4.0	.53

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 5 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
31. Jerry does perfectly good work as long as he is left along; he becomes extremely tense and anxious, however, whenever an adult speaks to him.	2 / 12	12* / 71	1 / 6	2 / 12		4.7	.44	4.3	.91
32. Seven year old Virginia rubs and blinks her eyes occasionally when reading, and seems to find it difficult to distinguish between certain letters of the alphabet.	2 / 12	7 / 41	7* / 41	1 / 6		4.4	.72	4.1	.64
33. Andy hears most, but not everything, that is said in class even though he wears a hearing aid.	2* / 12	10 / 59	1 / 6	3 / 18	1 / 6	3.5	1.3	3.5	.92
34. Stan's walk is a slow shuffle; he gets along on level surfaces or moderate inclines quite well, but is unable to manage stairs at all.	6* / 35	3 / 18	1 / 6	3 / 18	4 / 23	3.3	1.8	3.2	1.4
35. Roy has a bright purple birthmark which covers one cheek and the side of his neck.	15* / 88	2 / 12				4.8	.33	4.8	.35

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
36. Several times a day Lester says he can smell bananas; usually this means that he will soon fall to the floor on a convulsion which may last for several minutes.	4 / 23	2 / 12	3 / 18	6 / 35	2* / 12	2.8	1.6	3.1	1.2
37. Carla is a persistent talker, whisperer, and notepasser.	16* / 94	1 / 6				5.0	0.0	4.8	.35
38. Bert could play songs with one finger on the piano when he was four; now, in first grade, he has begun composing little melodies to which he gives names like "Rainy Day," "Bert's Bike", of "Juice-Time".	9 / 53	1* / 6	2 / 12	4 / 23	1 / 6	3.7	.83	3.6	.51
39. June's eyes are crossed but she has adequate vision in either eye despite the muscle imbalance.	14* / 82	3 / 18				5.00	0.0	4.6	.51
40. Laura's speech is laboriously slow, tortured, jerky and indistinct; her voice is monotonous in pitch and she cannot control its intensity.		8* / 47	4 / 23	4 / 23	1 / 6	3.7	1.09	4.6	.51

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (Cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	Project Child in Class (N=9)		No Project Child in Class (N=8)	
						$\bar{x}$	SD	$\bar{x}$	SD
41. Harry sulks, and sometimes gets quite noisy, whenever he loses the direct attention of the teacher.	5* / 29	7 / 41	4 / 23	1 / 6		4.1	.78	3.7	1.03
42. William can't hear anything with his left ear, but he gets along fairly well if he can sit in one row by the window, in a room on the quiet side of the building, with the class to his right.	12 / 71	1 / 6		2 / 12	2 / 12	4.2	1.56	4.0	1.60
43. Ben is unable to walk and has been confined to a wheelchair; he manages this very skillfully and needs very little help.	14* / 82	1 / 6		2 / 12		4.8	.33	4.2	1.3
44. Les was born with a malformed left hand which is withered and misshapen up to the elbow.	13* / 76	3 / 18			1 / 6	4.5	1.33	4.6	.51
45. Once or twice during the year Peter has complained of a peculiar feeling in his stomach; about a minute afterwards he has lost consciousness and his body has been first rigid and then convulsed for several minutes.	8 / 47	4* / 23	1 / 6	2 / 12	2 / 12	3.6	.86	4.1	.99

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
46. John has no difficulty on the playground or at the blackboard but he gets quite uncomfortable when he has to use his eyes at close range for any length of time.	6 / 35	8 / 47	2* / 12	1 / 6		3.6	.70	3.8	.64
47. Hugh eventually mutilates or destroys everything that gets into his hands; his books are marked and torn, his desk ink-stained and scared, and he has even managed to crack a blackboard panel.	1 / 6	5* / 29	3 / 18	7 / 41	1 / 6	4.0	1.11	3.7	.88
48. When anything happens to John the whole school knows it. A bump on the playground produces tears and wailing, an A for an exam brings on unrestrained shrieks of delight.	7* / 41	9 / 53	1 / 6			4.44	.52	4.2	.70
49. Sam moves about somewhat awkwardly and his limbs are in a slight but continual tremor that becomes pronounced only when he is nervous or excited.	10* / 59	3 / 18	1 / 6	2 / 12	1 / 6	3.77	1.64	4.5	.75
50. Arnold is an extremely bright nine-year-old who is far ahead of the rest of the class in most subjects; he spends a good deal of his time working on a mathematical system he calls "kinestatics."	6* / 35	2 / 12	2 / 12	5 / 29	2 / 12	3.5	1.58	3.0	1.51

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

TABLE 9 (cont'd)

MAINSTREAMING APPLICATIONS - END OF YEAR RESPONSES

	Frequency of Responses (N=17)					Scoring of Responses			
						Project Child in Class (N=9)		No Project Child in Class (N=8)	
	Regular Class	Part Time Occassional Aid	Full Time Aid	Special Class	Special School	$\bar{x}$	SD	$\bar{x}$	SD
51. Bill has difficulty in starting to talk, grimaces and strains, and repeats sounds of about half the words he says in class.		2 / 12	5* / 29	8 / 47	2 / 12	4.3	.70	4.0	.53
52. Kate weighs for two children her age; it is almost impossible for her to squeeze into the standard desk.	9* / 53	7 / 41	1 / 6			4.5	.52	4.3	.74
53. Helen's right hand may sometimes begin to tremble uncontrollably; during the next few minutes the spasmodic movement spreads along her arm, shoulder, and head before it finally stops.	5* / 29	6 / 35	1 / 6	4 / 23	1 / 6	3.5	1.33	3.6	1.40
54. John is constantly in motion - tapping his feet, opening and closing his desk top, and shuffling papers.	7* / 41	3 / 18	4 / 23	3 / 18		4.2	1.09	3.3	1.1
55. Debby cannot use bathroom facilities unless someone is there to help her; she is perfectly capable of making her needs known in ample time to avoid accidents.	8 / 47	3 / 18	4 / 23	2* / 12		3.2	1.30	2.7	.88

LEGEND: absolute frequency / relative frequency (%)

* "correct" placement

c) Part III

Attitude and Opinions

The attitude and opinion section of the questionnaire required the school staff to indicate their degree of agreement or disagreement with twenty statements concerning the integration of exceptional children. It was expected that the overall attitude of the school staff as a whole would indicate a greater degree of acceptance of exceptional children, and a greater willingness to accommodate these children in the regular classes as a result of the resource room project.

Overall, most items received the same kind of response at the end of year as had been obtained at the beginning of the year. Two items (Table 10), however, received significantly different responses. The responses to these two items might be interpreted to indicate a negative shift in attitudes over the school year. However, this could also be interpreted as a more

TABLE 10

CHI SQUARE

1. The regular class teacher does not have sufficient preparation time to plan individual instruction for mainstreamed special education students in his/her classes.

	FALL	SPRING	
AGREE	7	15	22
DISAGREE	12	2	14
	19	17	36

x^2 = 9.97161 with 1 df p < .0016

13. Current government policy, as expressed in the Plan d'Action imposes unreasonable demands and expectations on general education.

	FALL	SPRING	
AGREE	4	6	10
DISAGREE	13	5	18
missing cases	17	11	28

missing cases = 8

x^2 = 11.88111 with 3 df p < .0078

realistic outlook after a year of experience with integrated students. Certainly, the amount of preparation time a regular class teacher needs to plan individualized instruction is far greater when he/she has an exceptional child integrated into the classroom. The response to the second item (number 13) is probably also a reaction to the actual experience of having exceptional children integrated into regular classes and not necessarily a negative attitude. This interpretation is supported by some answers to other items which support the philosophy of mainstreaming exceptional children. For example, item number 2, "Regular classroom teachers are willing to accept special education pupils into their classes" indicates that staff agree strongly with this statement. Along with this indication of acceptance of special education students the school staff unanimously supported the statement "General educators must become more knowledgeable about exceptional children". Another item which also indicated a general positive attitude

toward the students themselves is seen in unanimous agreement with the statement "If given a chance, special education students would participate in most school activities". A detailed breakdown of the responses to this part of the questionnaire can be found in Table 11. It should be pointed out that while changes may not reach statistical significance, the changes may have educational significance, especially in terms of attitudes.

TABLE 11

ATTITUDES AND OPINIONS

	FALL (N=19)		SPRI (N=17)	
	AGREE	DISAGREE	AGREE	DISAGREE
1. The Regular class teacher does not have sufficient preparation time to plan individual instruction for mainstreamed special education students in his/her class.	7	12	15	2
2. Regular classroom teachers are willing to accept special education pupils into their classes.	13	6	12	5
3. General and Special Education teachers talk informally about special education problems.	14	4	14	3
4. Children placed in self-contained special education classes are more likely to be seen as different than if permitted to stay in regular classes.	16	3	10	7
5. If time were available to consult with special education personnel, regualr classroom teacbers would take advantage of this opportunity.	17	2	15	2
6. Special self-contained classes provide adequate educational services for the mildly handicapped and do not need to be changed.	8	11	7	10
7. It is an imposition to expect regular classroom teachers to help special education students.	4	15	1	16
8. Being placed in a special education self-contained classroom limits a student's chances for full participation in activities such as service organizations, clubs, sports, etc., normally available to regular classroom students.	4	15	2	15
9. The regular classroom teacher has the skills to help special education students.	7	12	3	14
10. The regular classroom teacher is willing to have special education personnel assist in the regular classroom.	15	4	12	5

11. The advantages of placement in self-contained special education classrooms outweigh the disadvantages of such placement for most pupils in need of special educational services.	15	4	12	5
12. A child is socially isolated from his peers when placed in a self-contained special education class.	5	14	7	10
13. Current government policy, as expressed in the Plan d'Action imposes unreasonable demands and expectations on general education.	4	13	6	5
14. Special education services ranging from residential care for free flow service must be available within the community.	18	1	15	2
15. General educators must become more knowledgeable about exceptional children.	19	0	17	2
16. Special education practices have been free of socio-economic and ethnic discrimination.	9	9	10	7
17. While regular classroom teachers can often provide appropriate learning activities for learning disabled students, they cannot provide the emotional support these pupils need.	11	8	12	5
18. If given a chance, special education students would participate in most school activities.	19	0	17	0
19. As a result of the current emphasis on individualized instruction regular class teachers are able to teach the exceptional child.	8	10	3	14
20. I strongly recommend the use of resource rooms for mildly handicapped children.	15	1	13	2

Summary

Research projects which occur in the "real" world are fraught with difficulties, due to the many uncontrollable and unforeseeable complications of human behavior. The St. Paul Resource Room project experienced its share of these kinds of problems, and results must be interpreted in light of these factors.

One of these difficulties has been alluded to in an earlier section. The school staff experienced an unusual number of maternity leaves over the school year, with some teachers on leave in September, returning to their classes after Christmas, and others leaving in February for the remainder of the school year.

The Resource Room Teacher, according to arrangements made before the project was approved by MEQ, took an extended leave from Christmas to Easter. She returned in early April, but was suddenly taken ill only two weeks after her return. She was absent until the first week of June. Fortunately, the same substitute teacher was available during these absences and did an admirable job of continuing the resource room program. The teacher aide was a great asset to the project, and provided continuity to the program as

well as a much needed male role model to the project students.

The research results are, in general, encouraging. Students who received help in the resource room did as well as those in the self-contained classes. This would indicate that the resource room model is an effective alternative way of providing special education services to mildly handicapped students.

The responses of teachers who had project children as students in many cases demonstrated an increase in willingness to accommodate exceptional children in regular classes. However, their responses also indicated an awareness of the difficulties and problems of daily planning and coping with the actual situation of having an integrated student.

V. CONCLUSIONS AND RECOMMENDATIONS

The experience of having a project child in the class seems to be, in general, a positive one.

These data would suggest that one of the most effective ways to encourage integration is to increase the personal contact between student and teacher. However, for this to be a successful experience for both teacher and student, practical information and consultation must be provided to the regular classroom teachers, to cope with the increased need for individualized instruction which will occur when a child is integrated.

Hence, the following recommendations are made:

To the School:

- Whenever possible a student should be integrated into a regular classroom and receive resource room services. Only in those cases where it is deemed absolutely necessary should a child remain in a self-contained class.
- A committee consisting of various school personnel, the school psychologist and an objective, outside consultant, should be formed to make the decisions concerning who should or should not remain in the self-contained class.

- A special education consultant, hired on a contractual basis, be available to help the regular classroom teachers individualize instruction.
- A series of school in-service workshops be conducted and organized by a recognized expert to present the staff with information concerning exceptional children, and methods to individualize instruction.

To the Ministry:

- That adequate funds be available to the school board to hire a consultant who would provide the services outlined in the above recommendations to the school.

VI. REPORT FROM THE SCHOOL

This section of the report was prepared by Mary Martin, school principal, and includes feedback from other members of the team as noted below.

1) Overall Reaction to the Project

My overall reaction to the project is a positive one. I can state this firstly because the general behaviour of the pupils involved in the project improved to quite an extent over what it was last year and secondly, because the academic progress made by these pupils who this year find themselves in the mainstream with their peers is truly remarkable!

2) Parents' perception of the Project

The parents were pleased to see their child functioning at grade level along with boys and girls their age. Most of all, they are proud of the fact that their child is being promoted and is faring comparitively well with the rest of the class. Generally speaking, this is the most positive aspect of the pilot project.

I was able to interview most of the parents recently and they all expressed satisfaction with the treatment

their child was given in the resource room as well as in the classroom. Such comments as "my son could not pronounce words correctly at the beginning of the school year and can now" are certainly encouraging to hear. The little boy that I am referring to is now fully integrated in the regular classroom. Other comments were to the effect that the children are now starting to like school.

3) Staff Reactions to the Project

As compared to the situation in January when the interim report was written, I would say that the staff look upon the project now more favourably. The reasons for this, I suppose, are the obvious success of the model and too, the fact that a resource room approach does not threaten the closed group approach. I sensed toward the end of the school year that all members of staff viewed these two types of special education services in the same perspective. Each is important and one does not supplant the other.

4) Administrative Difficulties

Now that I look back, it wasn't difficult after all to get the project off the ground. At first, I was con-

cerned by the questioning approach on the part of some members of staff. As mentioned in the interim report, this was a normal reaction as a new way of life was being introduced in the school. After all, the closed group formula and a bit of free-flow were all we had to answer to the special needs of our pupils. I was also most concerned by the difficulty we had making up a timetable flexible enough to permit the children to function both in the regular class and in the resource room. But my greatest worry was what would happen when the resource room teacher, who was the anchor person, would be away on leave of absence. From the feedback from parents, staff and the children themselves I don't think her absence was detrimental in any way to the success of the project. All I heard was praise for her.

5) Evaluation of Roles in Resource Room

Resource Room Teacher - She really should have had more time and help to organize the room without depriving the children of the services they were entitled to right from the beginning. I truly feel that the material, technical and physical organization nearly overwhelmed her. Because of the great amount

of time needed to set up the model, she lacked time to communicate her plans for the children from the outset. As time went on, though, it seemed easier for her to share ideas with the teachers. Her assignment was, I'm afraid, a bit too demanding. She too feels that the second year of operation will be easier in that the model is now operative. She will have more time to follow-up children in the regular classroom. The young teacher who replaced her during her leave was dynamic and very effective.

Teacher-Aide - Fortunately, the teacher-aide was a teacher, and a good one at that. He was most supportive and a good communicator with staff. Although he did not work primarily in the regular classroom he certainly helped the "older" project children to a considerable degree as he pretty much took the second cycle children in his charge.

Regular Classroom Teacher - Most teachers with project children managed to spend time in the resource room tutoring their children or others. This made them aware of the importance of the project and helped establish liaison with the rest of the staff.

Three of the teachers with project children, at levels two, three and five, as well as the French Specialist at second cycle left for a few months* and were replaced by qualified staff. A great deal of time was spent briefing these new teachers on the expectations we had for the children. I feel we managed pretty well in spite of all these changes.

6) Demands the Project made on the School

Time - Very time consuming at the beginning of the school year in particular. I was constantly talking about it as I had such faith in it. After a while it was considered a "regular" school activitity.

Facilities - No major problems.

Budget - The School Board was most cooperative and gave us an extra grant for reading materials.

Material - Once again, the Board was good enough to grant us money for adequate material that was purchased before the project was in operation. This

*Maternity Leave

list of prescribed material was recommended last year by Frank Murphy, Special Education Department Head.

Community Support - Our local School Committee was supportive in supplying funds for activities and outings and, most importantly, clerical assistance in the resource room.

7) Timetabling

Intricate at first - but the issue was resolved to everyone's satisfaction. This is understandable if we consider that each child had a particular education plan.

8) Educational Consequences

All in all the children progressed. I have not been given their "research" results yet but can attest that their "school" results are quite good.

The teachers appreciate the extra help, through the aide, with children who need more individual attention. It makes it easier to handle them in the classroom.

9) Other Comments

A good working model that demands a great deal, but it's worth it in terms of childrens' results and their positive attitude towards school

10) Recommendations

The most important recommendation would be that a staff willing to engage in this type of special education service be open to change and be very well informed as to its possible implications.

It would be advisable that there be a consultant or coordinator available on a consistent basis to oversee the model in all its dimensions as the Resource Teacher, Teacher-Aide, and administrators are quite tied up in their regular tasks to handle such a big assignment. This, I found, was lacking to a considerable degree in the pilot project.

Lastly, the Resource Room Timetable should be made up before all others. Our staff recommended this and I thank them for doing so.

APPENDIX A

ETHICAL RESEARCH STATEMENTS

and

APPROVAL DOCUMENTS

McGill University

Faculty of Graduate Studies and Research
Dawson Hall

CERTIFICATION OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN SUBJECTS

A review committee consisting of:

Name	Field of Research
Magdalena F. Bertrand	Education in Second Language as
Hidiam M. Talley (for J. Dumont)	Counselling
J.R. Wolpert	Secondary education
Mildred Burns	Admin + Policy Studies in Educ

has examined the application for funds in support of a project titled:

St. Paul School Pilot Project

As proposed by Lois Tetrault (Applicant) to _____ (Granting agency, if any)

and consider the experimental procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

1980 10 10
Date

David C. Smith
Director of Graduate Studies in Education

Ethical review committees are to be convened by the Head of the Department, or Administrative Unit, in which the proposed research is to be done and are to consist of a representative appointed by the Dean, two individuals knowledgeable in the field of the proposed research but not associated with the proposed project and preferably not from the department in which the project is to be carried out, and one or more individuals who would represent a general point of view. The applicant should not serve on the Committee nor should he sign on behalf of the department or the faculty.

Postal address: 853 Sherbrooke Street West, Montreal, PQ, Canada H3A 2T6

Research Committee of the Faculty of Education

Ethical Research Statement

Name of researcher OREP - Lois Tetreault

Title of research proposal St. Paul School Pilot Project

(Grant agency applied to, if any) _____

1. In your research plans, how do you intend to ensure that informed consent is obtained from subjects? (Informed consent requires that subjects fully understand the nature, procedures, risks and benefits of the research and freely agree to participate in the study.)

   The Des Ecores School Commission accepted the research proposal on behalf of its student subjects. The research design was explained to and endorsed by the Ministry of Education, the School Commission and the school.

2. Are there any physical or psychological risks to subjects? If so, please explain the nature of these risks and indicate how and to what extent you intend to inform subjects of these risks.

   There are no anticipated risks to the subjects. The design incorporates an alternative service model for the "experimental" group, and a traditional service model for the "control" group.

3. Will the proposed research impinge on the subjects' right to privacy? If so, describe how you intend to inform subjects of their right to privacy and indicate what steps will be taken to protect this right.

   Testing associated with the project does not differ from what would normally be done in the school. Where desirable, some measures will be obtained by research assistants to reduce demands on the teaching staff. Results will be available only to appropriate personnel.

4. What provisions will be made to ensure that the identity of subjects and the information obtained will be kept in confidence?

   Code numbers are assigned to subjects, and identity of subjects will be kept confidential.

N.B. KINDLY ATTACH A ONE-PAGE SUMMARY OF YOUR RESEARCH AND RESEARCH PROCEDURES.

SUMMARY

This project has been funded by the Ministry of Education as a Pilot Project in Special Education. The project is an attempt to meet the needs of both pupils and teachers in a mainstream situation.

The project compares an alternative form of Special Education service with a traditional type of service. Specifically, this involves the comparison of a Research Room model to a self-contained Special class model. Students in the Resource Room model are placed in a regular classroom, and go out of that class for necessary Special Education services. A unique feature is the presence of a teacher-aide who will act as a liason between the Resource Room and the Regular class.

All students in the school who would normally have been assigned to a self-contained Special class were identified. Students who were not eligible for inclusion in the project due to severity of their learning problems were also identified. The remaining children (N= 22) were matched on sex and age, and randomly assigned to the Resource Room and self-contained classroom models.

The design is as follows:

Mr	Ya	Xi	Yb	Experimental
	Ya	Xii	Yb	Control

M - Subjects matched on Sex and Age
r - Random Assignment
Y - Testing a) Pre b) Post
Xi - Resource Room Model
Xii - Self-Contained Class Model

Subjects will be tested in September and again in May in the areas of Achievement, Self-concept, and Peer Acceptance. Teachers will be assessed on Knowledge, Application and Attitudes toward Mainstreaming.

APPENDIX B

RESEARCH INSTRUMENTS

MAINSTREAMING APPLICATIONS AND OPINIONS:

A TEACHER QUESTIONNAIRE*

Prepared by:

Janyne Rahming
Lois Tétreault

for

Office of Research on Educational Policy
Administration and Policy Studies
Faculty of Education
McGill University

November 1980

*Adapted from Gickling and Theobald (1975) and
Paul, Turnbull and Cruickshank (1977)

TEACHER QUESTIONNAIRE

The research aspects of the Pilot Project require end-of-year data collection. We are, therefore, seeking your cooperation in the completion of this questionnaire.

This questionnaire has two sections. The first section is concerned with obtaining your views as to which types of children require which types of educational services. The second section is less specific and is intended to survey a wide range of opinions related to special education.

As the research interest lies in group patterns, these questionnaires are to be completed anonymously.

The only form of identification required concerns your current degree of involvement in the project underway and any previous special education training. The information is needed to allow for examination of the data between sub-groups. Therefore, could you please answer the following questions before you complete the questionnaire.

Do you have a "project child" in your regular classroom now?

Yes _____
No _____
Not applicable _____

Have you completed the Special Education Diploma or equivalent?

Yes _____
No _____

Have you taken courses in Special Education?

Yes _____

No _____

If yes, how many? 1 - 3 _____

4 - 7 _____

8 - 10 _____

over 10 _____

You will find specific instructions for each section as you complete the booklet. Do not hesitate to ask for clarification if required.

Thank you for your cooperation.

PART I

The following is a general information inventory. Please write the letter corresponding to your response in the blank provided.

___ 1. The major goal of training programs for the child with mild mental retardation is:

a) social adequacy
b) academic proficiency
c) occupational adequacy
d) occupational adjustment

___ 2. The emotional needs of the child with mild mental retardation are:

a) stronger than normal children
b) the same as normal children
c) not as strong as normal children
d) nothing to be particularly concerned with

___ 3. The proper placement for the slow learner (IQ 75-90) is in:

a) the regular classroom
b) special class
c) vocational arts
d) regular class until age of 16 and then dropped out of school

___ 4. In school, the slow learner usually:

a) is given a lot of successful experiences
b) meets with a great many failures
c) is a leader
d) is aggressive

___ 5. In grading the slow learner, the teacher should:

a) be realistic: if the child is a failure, fail him
b) grade him according to his achievement in relation to his ability
c) not be particularly concerned with a grade
d) grade him according to his IQ

___ 6. The child with mild mental retardation is:

a) potentially employable
b) potentially unemployable
c) educable
d) just slightly below average in intelligence

___ 7. The child with mild mental retardation:

a) looks quite different from other children
b) is in need of an educational program especially designed for his needs and characteristics
c) can never be self-supporting
d) cannot benefit from any program

___ 8. The mentally handicapped individual usually becomes:

a) skilled craftsman
b) a professional person
c) a semi-skilled or unskilled laborer
d) unemployable

___ 9. The learning disabled child:

a) has at least average intelligence
b) has superior intelligence only
c) always has retarded intelligence
d) may have somewhat retarded, average, or superior intelligence

___ 10. The most common educational handicap of the learning disabled is:

a) reading
b) arithmetic
c) spelling
d) geography

___ 11. The mentally handicapped usually have:

a) inferior motor development
b) superior motor development
c) superior physical development
d) above-average motor development

___ 12. The reaction of the public toward the retarded child seems to be:

a) rejecting
b) somewhat understanding but not completely accepting
c) accepting
d) to express feelings of acceptance though really feel rejection

___ 13. The congenital deaf child will probably display:

a) articulatory errors
b) voice abnormalities
c) retarded language growth
d) all of the above

___ 14. The deaf, deafened, and hard-of-hearing are different categories based mainly on:

a) degree of hearing loss
b) speech development
c) lip reading ability
d) amount of hearing loss and age of onset

___ 15. Disorders of articulation refer to all of the following but one:

a) omission of sounds
b) pitch
c) distortion of sounds
d) substitution of sounds

___ 16. Stuttering is often the result of:

a) cleft palate
b) emotional problems
c) malformation of the teeth
d) brain lesions

___ 17. The most common speech problem among elementary school children is:

a) functional articulatory problems
b) cleft palate speech
c) stuttering
d) voice problems

___ 18. Slow learners:

a) will read at grade level
b) will read at a level below normal children, but will come closer and closer to grade level as they progress through the grades
c) will read behind other children and will tend to fall further and further behind as they grow older.
d) will succeed with traditional reading programs in the regular grades

___ 19. The intellectual ability of cerebral palsy children as a group is:

a) normal
b) above normal
c) below normal
d) impossible to evaluate

___ 20. The classroom to be used for teaching learning disabled children should be:

a) very colorful
b) include much stimuli
c) have ample window area
d) have a minimum amount of stimuli

___ 21. Anoxia is a condition in which the brain:

a) receives insufficient oxygen
b) is underdeveloped
c) is too large
d) has suffered from hemorrhage

____ 22. One of the most commonly found characteristics of children with learning disabilities is:

a) disorders of speech and hearing
b) the neuroallergic syndrome
c) below average intelligence
d) hyperactivity (p. 72)

____ 23. Poliomyelitis is caused by:

a) heredity
b) Rh factor
c) a virus
d) lack of rest

____ 24. Before one can conclude that a child has a learning disability one must determine:

a) the causes of minimal brain dysfunction
b) if there is a disc epancy between the child's estimated ability and actual performance
c) if there is a discrepancy between the child's personal goals and the child's personal attainment
d) if there is a significant difference between intelligence and cultural opportunity

____ 25. If one of your pupils has an epileptic seizure you should:

a) leave the room to get help
b) keep him from getting into a dangerous position
c) stick your fingers in his mouth to keep him from biting his tongue
d) rush all of the children out of the room

____ 26. Learning disabled children often have difficulty in completing assigned tasks due to:

a) faulty work habits such as lack of attention to directions
b) insufficient cognitive development due to slight mental retardation
c) inability to follow directions due to impaired hearing
d) none of the above

____ 27. Social and emotional maladjustment in physically handicapped children:

a) is present in all cases
b) can be related to their mental ability
c) is dependent upon the number and severity of the problems
d) is less of a problem than in normal children

____ 28. The attitudes of parents toward their physically disabled child tend to be:

a) oversolicitous, rejecting
b) accepting, understanding
c) the same as toward their normal children
d) more positive than toward their normal children

___ 29. The prevailing attitude of regular class teachers toward handicapped children is:

a) verbalized acceptance but somewhat rejecting;
b) completely accepting;
c) the same as toward normal children
d) more understanding.

___ 30. The responsibility for the education of exceptional children should be placed upon:

a) the local school districts;
b) the community;
c) the province
d) the parents of the exceptional children.

___ 31. The blind:

a) have superior sensory acuity;
b) pay attention to auditory cues more than do seeing people;
c) develop a sixth sense;
d) have markedly superior musical ability.

___ 32. The most helpful attitude toward the blind child's achievement is:

a) sympathetic;
b) nonsentimental;
c) emotional;
d) narcissistic.

___ 33. In a school situation, the intellectually gifted differ most from the average in:

a) physical development;
b) motor abilities;
c) participation in athletics;
d) academic achievement.

___ 34. If repetition of a task is imposed by the teacher in such a manner that the child feels that he is failing, he will usually:

a) work harder in order to find success;
b) discover a technique of avoidance;
c) gain new insights;
d) become encouraged.

___ 35. Probably the handicap which is the most widely rejected by society is:

a) visual handicap;
b) orthopedic handicap;
c) hearing handicap;
d) behavior disorder.

PART II

Teachers are ordinarily faced with a wide variety of problems arising from the many different kinds of students they work with each day. On the following pages you will find brief descriptions of the behavior of a number of exceptional children. In each case you are to indicate how you would prefer to handle the situation if the decision were entirely up to you.

Read each item and write the letter corresponding to your choice as follows:

A. If you feel you could handle such a student in your regular classroom without any fundamental change in your present procedures.

B. If you feel you could handle such a student in your regular classroom provided advice from a specialist, such as speech therapist, psychologist, social worker, was occasionally available upon request. Exclude the need for strictly medical attention from this category.

C. If you feel you could handle such a student in your regular classroom provided there was a full-time specialist, such as a free flow teacher, available at your school who could provide supplementary training for the student and frequent consultation with you.

D. If you feel that such a student would benefit most by being assigned to a self-contained special class.

E. If you feel that such a student would benefit most by being place in a special school.

Mark each item according to this code:

A. Regular classroom
B. Part-time, occasional aid
C. Full-time aid
D. Special class
E. Special school

Mark each item according to this code:

A. Regular classroom
B. Part-time, occasional aid
C. Full-time aid
D. Special class
E. Special school

___ 1. Alfred is defiant and stubborn, likely to argue with the teacher, be willfully disobedient, and otherwise interfere with normal classroom discipline.

___ 2. Barbara wears thick glasses, and her eyeballs jerk spasmodically from side to side; she can't see the blackboard very well, and she reads poorly.

___ 3. Chuck can get about only in a wheelchair; someone must move it for him, or carry him in their arms, because he is unable to control any of his limbs.

___ 4. Donald is six years old and does not speak very much; what he does say is indistinct and childish, with many missing or incorrect sounds.

___ 5. Earl is eight and wears cowboy boots to class because he hasn't learned to tie his own shoe laces; he is generally cheerful and well-behaved, but talks very little and is incapable of following any but the most simple instructions.

___ 6. Florence is immature and oversensitive, likely to burst into tears at the slightest provocation.

___ 7. When Alice wears her hearing aid she hears as well as any other youngster; her voice sounds flat and hollow, and is somewhat unpleasant to hear.

___ 8. Suzy frequently gets so excited she loses control of herself and wets the floor.

___ 9. Ruth is very much like other eleven-year-olds in most respects but occasionally, during the day, a rhythmical quiver will pass over her face and she becomes totally oblivious for a few seconds.

___ 10. Roger's face was severely disfigured in an auto accident; although he is completely recovered physically, the surgeons do not expect to be able to make his appearance more acceptable for many years.

___ 11. Alan wears a leg brace and walks with the aid of crutches; he gets along quite well by himself though, and ordinarily needs no help from anyone.

___ 12. Bernard is a bully, given to teasing other children and provoking fights with them.

___ 13. Cora is supposed to have a hearing loss, but she seems to hear all right when she sits at the right end of the front row of seats.

Mark each item according to this code:

A. Regular classroom
B. Part-time, occasional aid
C. Full-time aid
D. Special class
E. Special school

___ 14. Clara has a noticeable scar on her upper lip; her speech seems to be coming through her nose, and she is hard to understand.

___ 15. Dotty is eight; she has difficulty following the class, and doesn't seem able to learn to read at all.

___ 16. Eight-year-old Edward sucks his thumb all the time, apparently indifferent to the reactions of parents, teachers, or other children.

___ 17. Every few weeks, without any warning, Stella will have a violent physical convulsion; after several minutes she returns to consciousness with severe headache, nausea, and acute feelings of depression.

___ 18. Flora has neither bladder nor bowel control and must be taken to the bathroom at frequent intervals.

___ 19. David squints through his eyeglasses, even when he sits at the front of the room, and cannot read the blackboard or his book quite as rapidly as many of the other children.

___ 20. Occasionally Edward will repeat a sound two or three times before he seems able to go on; he speaks when called on, but does not volunteer much.

___ 21. Chuck doesn't seem to catch on to things as quickly as most, and needs to have things explained over and over again; eventually, though, he appears to learn everything the others do even though it has taken longer.

___ 22. Doris is slow, absent-minded, and a daydreamer; she seems unusually quiet and withdrawn, avoids others, and is inhibited and restrained in her behavior.

___ 23. Every hour or so Henry stares upwards at the ceiling for several seconds and loses consciousness; he has been like this for several years but is otherwise developing normally.

___ 24. Fred can feel the vibrations of loud music from a radio or phonograph, knows when a door has been slammed, but does not hear speech unless it is shouted.

___ 25. Greg is nine years old and tires easily. He needs frequent opportunities to rest; excessive stimulation or excitement must also be avoided.

___ 26. Harold is a capable student but has a physical defect which appears to evoke laughter, ridicule, avoidance and rejection from the other children.

Mark each item according to this code:

A. Regular classroom
B. Part-time, occasional aid
C. Full-time aid
D. Special class
E. Special school

___ 27. Jane can tell the direction from which the sunshine enters her classroom; she cannot read the letters in an ordinary book.

___ 28. Albert does not pronounce all of his speech sounds correctly, but can be understood.

___ 29. Betty is only a little over seven but she can read the fifth-grade reader very well: her handwriting is poor though she is above average in most other things.

___ 30. Chester is deceitful, tells lies, and cheats in school and at play; he has been involved in several thefts, and is a persistent truant.

___ 31. Jerry does perfectly good work as long as he is left alone; he becomes extremely tense and anxious, however, whenever an adult speaks to him.

___ 32. Seven year old Virginia rubs and blinks her eyes occasionally when reading, and seems to find it difficult to distinguish between certain letters of the alphabet.

___ 33. Andy hears most, but not everything, that is said in class even though he wears a hearing aid.

___ 34. Stan's walk is a slow shuffle; he gets along on level surfaces or moderate inclines quite well, but is unable to manage stairs at all.

___ 35. Roy has a bright purple birthmark which covers one cheek and the side of his neck.

___ 36. Several times a day Lester says he can smell bananas; usually this means that he will soon fall to the floor on a convulsion which may last for several minutes.

___ 37. Carla is a persistent talker, whisperer, and notepasser.

___ 38. Bert could play songs with one finger on the piano when he was four; now, in first grade, he has begun composing little melodies to which he gives names like "Rainy Day," "Bert's Bike," or Juice-Time."

___ 39. June's eyes are crossed but she has adequate vision in either eye despite the muscle imbalance.

___ 40. Laura's speech is laboriously slow, tortured, jerky and indistinct; her voice is monotonous in pitch and she cannot control its intensity.

___ 41. Harry sulks, and sometimes gets quite noisy, whenever he loses the direct attention of the teacher.

Mark each item according to this code:

A. Regular classroom
B. Part-time, occasional aid
C. Full-time aid
D. Special class
E. Special school

___ 42. William can't hear anything with his left ear, but he gets along fairly well if he can sit in one row by the window, in a room on the quiet side of the building, with the class to his right.

___ 43. Ben is unable to walk and has been confined to a wheelchair; he manages this very skillfully and needs very little help.

___ 44. Les was born with a malformed left hand which is withered and misshapen up to the elbow.

___ 45. Once or twice during the year Peter has complained of a peculiar feeling in his stomach; about a minute afterwards he has lost consciousness and his body has been first rigid and then convulsed for several minutes.

___ 46. John has no difficulty on the playground or at the blackboard but he gets quite uncomfortable when he has to use his eyes at close range for any length of time.

___ 47. Hugh eventually mutilates or destroys everything that gets into his hands; his books are marked and torn, his desk ink-stained and scarred, and he has even managed to crack a blackboard panel.

___ 48. When anything happens to John the whole school knows it. A bump on the playground produces tears and wailing, an A for an exam brings on unrestrained shrieks of delight.

___ 49. Sam moves about somewhat awkwardly and his limbs are in a slight but continual tremor that becomes pronounced only when he is nervous or excited.

___ 50. Arnold is an extremely bright nine-year-old who is far ahead of the rest of the class in most subjects; he spends a good deal of his time working on a mathematical system he calls "kinestatics."

___ 51. Bill has difficulty in starting to talk, grimaces and strains, and repeats sounds of about half the words he says in class.

___ 52. Kate weighs enough for two children her age; it is almost impossible for her to squeeze into the standard desk.

___ 53. Helen's right hand may sometimes begin to tremble uncontrollably; during the next few minutes the spasmodic movement spreads along her arm, shoulder, and head before it finally stops.

Mark each item according to this code:

A. Regular classroom
B. Part-time, occasional aid
C. Full-time aid
D. Special class
E. Special school

____ 54. John is constantly in motion - tapping his feet, opening and closing his desk top, and shuffling papers.

____ 55. Debby cannot use bathroom facilties unless someone is there to help her; she is perfectly capable of making her needs known in ample time to avoid accidents.

PART III

On the following pages, you will find a number of statements concerning the education of exceptional children. Please indicate, by circling the appropriate number, the extent of your agreement with the statement.

1. The Regular class teacher does not have sufficient preparation time to plan individualized instruction for mainstreamed special education students in his/her classes.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

2. Regular classroom teachers are willing to accept special education pupils into their classes.

1	2	3	4

3. General and Special Education teachers talk informally about special education problems.

1	2	3	4

4. Children placed in self-contained special education classes are more likely to be seen as different than if permitted to stay in regular classes.

1	2	3	4

5. If time were available to consult with special education personnel, regular classroom teachers would take advantage of this opportunity.

1	2	3	4

6. Special self-contained classes provide adequate educational services for the mildly handicapped and do not need to be changed.

1	2	3	4

7. It is an imposition to expect regular classroom teachers to help special education students.

1	2	3	4

8. Being placed in a special education self-contained classroom limits a student's chances for full participation in activities such as service organizations, clubs, sports, etc., normally available to regular classroom students.

1	2	3	4

9. The regular classroom teacher has the skills to help special education students.

1	2	3	4

10. The regular classroom teacher is willing to have special education personnel assist in the regular classroom.

1 2 3 4

11. The advantages of placement in self-contained special education classrooms outweigh the disadvantages of such placement for most pupils in need of special educational services.

1 2 3 4

12. A child is socially isolated from his peers when placed in a self-contained special education class.

1 2 3 4

13. Current government policy, as expressed in the Plan d'Action, imposes unreasonable demands and expectations on general education.

1 2 3 4

14. Special education services ranging from residential care fo free-flow service must be available withir the community.

1 2 3 4

15. General educators must become more knowledgeable about exceptional children.

1 2 3 4

16. Special education practices have been free of socio-economic and ethnic discrimination.

1 2 3 4

17. While regular classroom teachers can often provide appropriate learning activities for learning disabled students, they cannot provide the emotional support these pupils need.

1 2 3 4

18. If given a chance, special education students would participate in most school activities.

1 2 3 4

19. As a result of the current emphasis on individualized instruction, regular class teachers are able to teach the exceptional child.

1 2 3 4

20. I strongly recommend the use of resource rooms for mildly handicapped children.

1 2 3 4

APPENDIX C

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